

REMARKS

Claim 1 and claims 3 through 9 are pending in the subject application. Claim 1 and claims 3-9 stand rejected under 35 U.S.C. 103(a). Claim 1 has been amended; claim 10 has been newly added; and claim 3 has been canceled without prejudice. As a result, after this amendment is entered, the pending claims are claim 1 and claims 4-10.

The Applicants appreciate the Examiner's thorough examination of the subject application and respectfully request reconsideration of the subject application based on the following remarks.

35 U.S.C. § 103(a) REJECTION

The Examiner has rejected claims 1, 6, 8, and 9 under 35 USC 103(a) as unpatentable over U.S. Patent Number 6,377,321 to Khan, et al. ("Khan" or the "Khan Reference") in view of Japanese Published Laid-Open Patent Application JP 06-102485A ("Okada" or the "Okada Reference") and U.S. Patent Number 5,576,860 to Nakamura, et al. ("Nakamura" or the "Nakamura Reference"); claim 3 under 35 USC 103(a) as unpatentable over Khan in view of Okada and Nakamura further in view of U.S. Patent Number 6,414,669 to Masazumi ("Masazumi" or the "Masazumi Reference"); claims 4 and 5 under 35 USC 103(a) as unpatentable over Khan in view of Okada and Nakamura further in view of U.S. Patent Number 4,632,514 to Ogawa, et al. ("Ogawa" or the "Ogawa Reference"); and claim 7 under 35 USC 103(a) as unpatentable over Khan in view of Okada further in view of U.S. Patent Number 5,880,801 to Scherer, et al. ("Scherer" or the "Scherer Reference"). The Applicants respectfully traverse these rejections in view of the above amendment and for the reasons provide below.

Claims 1, 6, 8, and 9

Claim 1 has been amended to include the subject matter of dependent claim 3. As a result, the Applicants believe the grounds for rejection are now moot in view of the remarks provided in greater detail below.

With respect to new claim 10, the Nakamura reference claims a d/P ratio between 1.5 and 4 whereas the invention as claimed provides a range that is greater than 4 but less than 15, which is not taught, mentioned or suggested by Nakamura.

Accordingly, the Applicants assert that the claims 1, 6, and 8-10 are not made obvious by the cited references and, further, satisfy the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that the claims are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 3

Claim 3 has been canceled and claim 1 has been amended to include the subject matter of claim 3. Accordingly, the ground for rejection is now moot. However, to the extent that the Masazumi reference makes up for the deficiencies of the Khan, Okada, and Nakamura references, the Applicants respectfully disagree.

Although the passages cited by the Examiner address a first and a second threshold voltage that define a homeotropic state above V_{th1} , a planar state below V_{th2} , and a focal conic state between V_{th1} and V_{th2} , there is nothing in Masazumi that teaches, mentions or suggests defining the thickness d of the liquid crystal layer so that V_{thFmax} is less than V_{thHmin} in each of the plurality of pixels, where V_{thFmax} denotes the first threshold voltage for transitioning the liquid crystal layer included in a region with a largest thickness d of the liquid crystal layer from the

planar state to the focal conic state, and V_{thHmin} denotes a second threshold voltage for transitioning the liquid crystal layer included in a region with a smallest thickness d of the liquid crystal layer from the focal conic state to a homeotropic state. Indeed, Masazumi does not relate the threshold voltages to regions having different cell gap distances, nor would it have been obvious by combining the cited references.

Accordingly, the Applicants assert that the claim 1 as amended, which includes the subject matter of claim 3, is not made obvious by the cited references and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that the claims are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 4 and 5

Nor can the Ogawa reference make up for the deficiencies of the Khan, Okada, and Nakamura references. Indeed, Ogawa does not teach, mention or suggest defining a thickness d of the liquid crystal layer so that V_{thFmax} is less than V_{thHmin} in each of the plurality of pixels, where V_{thFmax} denotes the first threshold voltage for transitioning the liquid crystal layer included in a region with a largest thickness d of the liquid crystal layer from the planar state to the focal conic state, and V_{thHmin} denotes a second threshold voltage for transitioning the liquid crystal layer included in a region with a smallest thickness d of the liquid crystal layer from the focal conic state to a homeotropic state.

Accordingly, the Applicants assert that the claims 4 and 5 are not made obvious by the cited references and, further, satisfy the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that the claims are allowable. Moreover, it is respectfully submitted that the subject application is in

condition for allowance. Early and favorable action is requested.

Claim 7

Nor can the Scherer reference make up for the deficiencies of the Khan, Okada, and Nakamura references. Indeed, Scherer does not teach, mention or suggest defining a thickness d of the liquid crystal layer so that V_{thFmax} is less than V_{thHmin} in each of the plurality of pixels, where V_{thFmax} denotes the first threshold voltage for transitioning the liquid crystal layer included in a region with a largest thickness d of the liquid crystal layer from the planar state to the focal conic state, and V_{thHmin} denotes a second threshold voltage for transitioning the liquid crystal layer included in a region with a smallest thickness d of the liquid crystal layer from the focal conic state to a homeotropic state.

Accordingly, the Applicants assert that the claim 7 is not made obvious by the cited references and, further, satisfies the requirements of 35 U.S.C. 100 et seq., especially § 103(a). As such, the Applicants believe that the claim is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

E. Sato, et al.
USSN 10/039,309
Page 10

The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

Date: November 9, 2004

By: 

George W. Hartnell, III
Reg. No. 42,639
Attorney for Applicant(s)

EDWARDS & ANGELL, LLP
P.O. Box 55874
Boston, MA 02205
(617) 517-5523
Customer No. 21874
459569